ILC Dover Inc.

Delaware Manufacturing Extension Partnership

ILC Achieves New Levels of Efficiency

Client Profile:
ILC Dover is a high-tech manufacturer of gloves for space shuttle astronauts, gas masks for the Department of Defense, and products used by pharmaceutical manufacturers. The company's markets are divided into approximately even thirds between these three marketplaces. ILC employs approximately 350 people. Founded in the 1940s, the company headquarters is in Frederica, Delaware, with facilities in Houston and other locations. It is owned by a venture capital firm.

Situation:
ILC customers recognized that the company's products are technically superior, but high costs and frustration with the ordering and fulfillment services created two barriers to signing new contracts and maintaining current customer relationships. ILC relied on push systems to fulfill orders for the Dover Pack, a popular product used to handle pharmaceuticals. The lead time for this product was 6 weeks.Because no single database captured all the ordering information, ILC Dover relied on 11 pieces of software to handle order taking, filing, accounting, production tracking, fulfillment and shipping. Employees transfered the information by e-mail, resulting in redundancies and mistakes. Between 30 and 40 pieces of paper were required to complete an order. Five days before the shipment was sent to the customer, an employee began the paperwork process, which allowed time to check for mistakes. Then, a certificate of conformance was created, formatted to the customer's preference. More than 20 certificates existed. ILC sought out the Delaware Manufacturing Extension Partnership (DMEP), a NIST MEP network affiliate, after success with previous plant improvements, including its space shuttle glove manufacturing process in the year 2000. In November 2004, DEMEP returned to address the company's pharmaceutical product division.

Solution:
ILC adopted Lean manufacturing processes, including value stream mapping. ILC also educated all employees on pull techniques. The entire production stream was analyzed by 5S. Value-added steps were identified and the rest were discarded. Switching to a single database allowed the correct data to be input at the time of order. The data is then pulled from the system correctly and confidently. Employees do not need to double-check information at each stage, since it's already in place. Production employees were then educated in pull techniques to regain confidence in their own database system. An operator pulls the information from the database at the point of shipping. Now implemented, the shipping process is going to be standardized across ILC Dover's product lines and for facilities in other locations. Total productive maintenance was implemented on equipment. Backup parts were placed to reduce down time and increase overall equipment effectiveness.

Results:

* Customer service representatives can tell customers at the time of order when it will be fulfilled.
* Expected decrease in production lead time from 6 weeks to 4 weeks.
* Reduced the number of compliance certificates for customers from more than 20 individual forms to three that address all customers' needs.
* Reduced engineering change order process from 63 hours to less than 20 hours.
* Reduced downtime on equipment from between two and four hours to less than 30 minutes.

Testimonial:
"By the DEMEP teaching Lean manufacturing, employees could see that they could do things differently. The DEMEP has been providing them with that message. They have not changed that message. They are not chasing the flavor or the month or the latest business fad."
David M. Harman, Manager, Continuous Improvement